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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/614,749

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EXAMINER

NATNITHITHADHA, NAVIN

ART UNIT

PAPER NUMBER

3735

MAIL DATE

DELIVERY MODE

04/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/614.749

Applicant(s)

KORHONEN ET AL.

Examiner

Navin Natnithithadha

Art Unit

3735

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
4a) Of the above claim(s) 23-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 23-53 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 20030707;20041210.
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
 5) ☐ Notice of Informal Patent Application
 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Claims 23-53 have been withdrawn. Claims 1-22 are pending.

Election/Restrictions

2. Applicant's election of claims 1-22 in the reply filed on 26 April 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 23-53 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 26 April 2007.

This application contains claims 23-53 drawn to an invention nonelected without traverse filed on 26 April 2007. A complete reply to this Office Action must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Objections

3. Claim 12 is objected to because of the following informalities:

In lines 5-6, the claim states "at least a first and a third parameter value". This appears to omit essential element of the claim, i.e. a second parameter value, such

omission amounts to a gap between the elements. Claims 13, 17, and 21, also, refers to the third parameter value. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsutsumi et al, US 6,315,736 B1 ("Tsutsumi").

Claims 1-22: Tsutsumi teaches a method for monitoring a condition of a patient under anesthesia or sedation (see col. 1, ll. 6-11), the method comprising the steps of: acquiring at least a first signal representing a cardiovascular activity, e.g. blood pressure and/or ECG, of the patient (see fig. 1 and col. 4, ll. 5-17 and 43-50) using a pressure metering (pressure sensor) 22 and/or an ECG 42; deriving, from said first signal, at least a first and a second/third parameter value, which are related to waveform amplitudes/periodicity, and they quantities of the values are pulse wave amplitude (magnitude of [pulse] signal's peak) and pulse rate/heart beat interval (heart rate HR or pulse-period values RR) (see col. 6, ll. 1-37); applying (using a nonlinear equation, neural network, or defined rule-based reasoning procedure, see col. 7, ll. 8-26, and col. 8, ll. 10-14) a predetermined mathematical index for probability of patient comfort (pain-index I_p determining means 67), in which index I_p said at least first and

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second parameters are variables (see col. 7, ll. 8-26); calculating successively changing values of said mathematical index (change determining the ratio $\Delta RR/\Delta BP_{sys}$, see col. 7, ll. 16-25, col. 9, l. 51, to col. 10, l. 48, and col. 11, l. 47, to col. 12, l. 12); and indicating said successive index values I_p (successively/iteratively determining and displaying index I_p , see col. 8, ll. 27-32; and col. 9, ll. 51, to col. 11, l. 29).

Although Tsutsumi's ECG 22 and the claimed "photoplethysmography" measure different cardiosacular activity, i.e. ECG signal and blood volume signal, respectively, Tsutsumi teaches using the ECG signal to derive the same first and second parameter values, e.g. pulse wave amplitude and pulse rate/heart beat interval, as the claimed "blood pressure signal." Thus, the method step "wherein said first signal concerning cardiovascular activity is a blood volume signal measured non-invasively using photoplethysmography" is the essentially same as Tsutsumi's teaching, or at the very least a matter of an obvious design choice.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

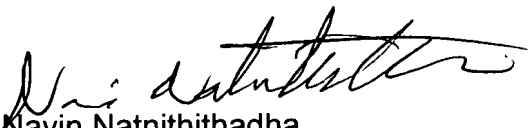
The other patents cited in the PTO-892 teach subject matter related to the Applicant's claims. The Examiner suggests reviewing these patents before responding to the present Office Action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navin Natnithithadha whose telephone number is (571) 272-4732. The examiner can normally be reached on Monday-Friday, 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II, can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Navin Natnithithadha
Patent Examiner
Art Unit 3735